

In the Claims:

Please cancel Claims 5-11 and 13, without prejudice. The status of all Claims is as indicated below:

1. (Original) A magnetic recording and/or reproducing apparatus comprising:  
equalization means for equalizing a signal sequence which is reproduced from a magnetic recording medium and outputting an equalized waveform; and  
conversion means for converting the equalized waveform into a maximum likelihood sequence by carrying out metric calculation based on average values of the equalized waveform.

2. (Original) The magnetic recording and/or reproducing apparatus as claimed in claim 1, further comprising:  
error detection and correction means for carrying out an error detection and an error correction with respect to the maximum likelihood sequence using a parity bit,  
said error detection and correction means carrying out the error correction by comparing a sequence which is obtained by convolution of the maximum likelihood sequence and the average values of the equalized waveform, with the equalized waveform.

3. (Original) The magnetic recording and/or reproducing apparatus as claimed in claim 1, further comprising:

memory means for storing a conversion table which includes the average values of the equalized waveform.

4. (Original) The magnetic recording and/or reproducing apparatus as claimed in claim 3, further comprising:

control means for updating said conversion table at an arbitrary timing.

5-11. (Cancelled)

12. (Original) A magnetic recording and/or reproducing apparatus comprising:

an equalization section which carries out an equalization with respect to a signal sequence reproduced from a magnetic recording medium, and outputs an equalized waveform; and

a conversion section which converts the equalized waveform into a maximum likelihood sequence by carrying out metric calculation based on average values of the equalized waveform.

13. (Cancelled)